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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/647,924

08/25/2003

Clayton M. Hardman

P/55-6

2437

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01/27/2009

EXAMINER

BAYARD, EMMANUEL

ART UNIT

PAPER NUMBER

2611

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/647,924	HARDMAN, CLAYTON M.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Emmanuel Bayard	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This is in response to amendment filed on 9/9/08 in which claims 1-10 are pending. The applicant's amendments have been fully considered but they are moot based on the new ground of rejection.

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Akram et al U.S. Patent No 6,868,081 B1.

As per claim 1, Akram et al teaches a system that provides a user of a single analog line multiple uses of said line comprising; a modem (see fig.2 element 210) connected to a fixed logic system which multiplexes or demultiplexes data (see fig.2 element 220); said modem compressing a signal traveling through said analog line (see fig.2 element 211 and col.5, lines 15-21) and ; said modem providing simultaneous transmission of two, or more, speech or data calls (see abstract abstract and col.1, lines 20-45).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 4-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akram et al U.S. Patent No 6,868,081 B1 in view of Staples et al U.S. Patent No 6,301,339 B1.

As per claim 2 Akram et al teach all the features of the claimed invention except wherein said modem is programmable.

Staples et al teaches wherein said modem is programmable (see col.13, lines 10-15 and col.16, line 66-col.17, line 10).

It would have been obvious to one of ordinary skill in the art to implement the teaching of Staples into Akram et al as store program instructions and data executed by the processor as taught by Staples (see col.16, lines 2-6).

As per claim 4, Akram and Staples et al in combination would teach wherein said system is reprogrammed as needed as to accurately store all the data calls forwarded either from the user's office telephone or from the user's home telephone.

As per claim 5, Akram and Staples et al in combination would teach wherein said modem is downloaded on analog lines, cable, satellite and fiber lines (see Staples col.7, lines 14-18) as to facilitate the communication of data between two or more communications devices.

As per claim 6, Akram and Staples et al in combination would teach wherein said simultaneous transmission is accomplished by compressing conventional analog voice traffic to occupy less bandwidth (see Akram col.4, lines 50-52) as to limit the number of simultaneous connections of the bandwidth of the telephone line.

As per claim 7, Akram and Staples et al in combination would teach further comprising a speech compression algorithm requiring between about 5.6 to 6.4 kbps of bandwidth ) as to limit the number of simultaneous connections of the bandwidth of the telephone line in order for the compression to be accomplished by occupying minimum bandwidth.

As per claim 8, Akram and Staples et al in combination would teach wherein said modem further comprises field programmable gate array as store program instructions and data executed by the processor as taught by Staples (see col.16, lines 2-6).

As per claim 9, Akram and teaches wherein said system is connected to a copper line (see col.1, line 51) by a COTS modem.

As per claim 10, Akram and Staples et al in combination would teach wherein said system comprises two modems, one at each end of an analog line; a first modem compresses and multiplexes data at a source end of said line; and a second modem demultiplexes and expands data at an exchange end of a copper line (see Staples fig.2 and col.7, lines 56-65) as to facilitate the communication of data between two or more communications devices.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable Akram et al U.S.

Patent No 6,868,081 B1 in view of Bowen U.S. Pub no 2002/0100029 A1

As per claim 3, Akram et al teaches all the features of the claimed invention except wherein said modem incorporates Handel-C.

6. Bowen teaches wherein said modem incorporates Handel-C (see fig.6 element 604 and page 1 [0009]).

7. It would have been obvious to one of ordinary skill in the art to implement the teaching of Bowen into Akram et al as to enable a software or hardware engineer to target directly FPGAs in similar fashion to classical microprocessor cross-compiler development tools as taught by Bowen (see page 1[0009]).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is 571 272 3016. The examiner can normally be reached on Monday-Friday (7:Am-4:30PM)  
Alternate Friday off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571 272 3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

1/27/2009

Emmanuel Bayard  
Primary Examiner  
Art Unit 2611

/Emmanuel Bayard/  
Primary Examiner, Art Unit 2611